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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/737,362	12/16/2003	Brian Andrew Carr	MCG00333	6018

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EXAMINER

KAO, JUTAI

ART UNIT	PAPER NUMBER
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2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/737,362</p>	<p>Applicant(s)</p> <p align="center">CARR, BRIAN ANDREW</p>	
	<p>Examiner</p> <p align="center">Ju-Tai Kao</p>	<p>Art Unit</p> <p align="center">2616</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) ✓ | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-(d) based upon an application filed in the United Kingdom on 08/01/2002. A claim for priority under 35 U.S.C. 119(a)-(d) cannot be based on said application, since the United States application was filed more than twelve months thereafter.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The standards and features of the "Motorola PVRB series card" in claim 8 and the "Motorola PCRB series card" are subject to change. That is, newer models of the series may or may not fit the claimed limitations. Thus, these two claims are indefinite for failing to particularly point out and distinctly claim the subject matter.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 1, 3, and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by PICMG 2.16 Revision 1.0, titled "Packet Switching Backplane Short Form Specification" (Here on referenced as Prior art 1).

Prior art 1 discloses a short version of the PICMG 2.16 specification including the following features.

Regarding claim 1, a packet switched backplane (see "Packet Switching Backplane" recited in page 3, section "Packet Switching Backplane Overview) having a plurality of node slots (see node slots and fabric slots in Fig. 6 on page 6) wherein at least two of said node slots (see node slots 1-4 in Fig. 6 on page 6) comply with the PICMG 2.16 node standard (Prior art 1 is the PICMG 2.16 specification) characterized in that at least one of said node slots complying with said PICMG 2.16 node standard (nodes slots 1-4 in Fig. 6 on page 6) is connected by means of dedicated links (see the dedicated one-to-one connection between node slots 1-4 and fabric card link port 1-4 in Fig. 6 on page 6) to at least one aggregation slot (see fabric slots a and b in Fig. 6 on page 6; also see "link port 'a' of each Node Slot is connected to a Link Port of Fabric Slot 'a'" recited in line 1-3 on page 6), said aggregation slot comprising at least one other node slot (the Fabric Board Link Ports 1 to N in Fig. 6, on page 6) complying with said PICMG 2.16 node standard (Prior art 1 is the PICMG 2.16 specification).

Regarding claim 3, wherein at least one of said node slots (see node slots 1-4 in Fig. 6 on page 6) is connected to two of said aggregation slots (see Fig. 6 on page 6, wherein each node card 1-4 is connected to both Fabric slots a and b).

Regarding claim 4, backplane according to claim 1 having at least one fabric slot (see fabric slots a and b in Fig. 6 on page 6) that comply with PICMG 2.16 standard (Prior art 1 is the PICMG 2.16 specification).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art 1 in view of Dove (US 2005/0036506).

Prior art 1 discloses the claimed limitations in paragraph 5 above. Prior art 1 does not disclose the following features: regarding claim 2, wherein Ethernet transmit pins of said node slots are connected to Ethernet receive pins of said aggregation slot and Ethernet receive pins of said node slots are connected to Ethernet transmit pins of said aggregation slot.

Dove discloses a method for automatically switching media connections when operating in forced speed and duplex mode including the following features.

Regarding claim 2, wherein Ethernet (see "Ethernet" recited in paragraph 45 on page 5) transmit pins (see transmit pins 3 and 6 and connection 22 in Fig. 2) of said node slots (see rejection to claim 1 using Prior art 1) are connected to Ethernet receive pins (see receive pins 1 and 2 and connection 22 in Fig. 2) of said aggregation slot (see rejection to claim 1 using Prior art 1) and Ethernet (see "Ethernet" recited in paragraph 45 on page 5) receive pins (see receive pins 1 and 2 and connection 24 in Fig. 2) of said node slots (see rejection to claim 1 using Prior art 1) are connected to Ethernet transmit pins (see transmit pins 3 and 6 and connection 24 in Fig. 2) of said aggregation slot (see rejection to claim 1 using Prior art 1).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Prior art 1 by using the features, as taught by Dove, in order to provide compatibility to the commonly-used Ethernet-based systems.

8. Claim 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art 1 in view of Dove (US 2005/0036506) and Schwartz (US 6,947,410).

Prior art 1 discloses a short version of the PICMG 2.16 specification including the following features.

Regarding claim 5, a data processing system comprising a packet switched backplane a packet switched backplane (see "Packet Switching Backplane" recited in page 3, section "Packet Switching Backplane Overview) having a plurality of node slots (see node slots and fabric slots in Fig. 6 on page 6) characterized in that dedicated links (see the dedicated one-to-one connection between node slots 1-4 and fabric card link

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port 1-4 in Fig. 6 on page 6) connect at least one of said node slots (nodes slots 1-4 in Fig. 6 on page 6) to at least one aggregation slot (see fabric slots a and b in Fig. 6 on page 6; also see "link port 'a' of each Node Slot is connected to a Link Port of Fabric Slot 'a'" recited in line 1-3 on page 6), said aggregation slot comprising at least one other node slot (the Fabric Board Link Ports 1 to N in Fig. 6, on page 6) as well as connect the at least one of said node slots to said aggregation slot to make a direct point-to-point Ethernet connection (see the dedicated point-to-point connection between node slots 1-4 and fabric card link port 1-4 in Fig. 6 on page 6; also see "Ethernet connection" recited in section "Packet Switching Backplane Overview" on page 3).

Prior art 1 does not disclose the following features: regarding claim 5, having a plurality of node cards connected to said node slots and that the Ethernet transmit pins of at least one of said node slots connect to the Ethernet receive pins of at least one aggregation slot and that Ethernet receive pins of at least one of said node slot connects to the Ethernet transmit pins of said aggregation slot to make the direct point-to-point Ethernet connection wherein an aggregation card comprising a node card equipped with an Ethernet bridging unit and an external Ethernet connector is connected to said aggregation slot and said Ethernet bridging unit bridges between said node cards and external addresses by means of said external Ethernet connector; regarding claim 6, wherein said Ethernet bridging unit is an Ethernet switch; regarding claim 7, wherein each of said node cards is connected to two aggregation cards.

Dove discloses a method for automatically switching media connections when operating in forced speed and duplex mode including the following features.

Regarding claim 5, wherein Ethernet (see "Ethernet" recited in paragraph 45 on page 5) transmit pins (see transmit pins 3 and 6 and connection 22 in Fig. 2) of said at least one node slots (see rejection to claim 1 using Prior art 1) are connected to Ethernet receive pins (see receive pins 1 and 2 and connection 22 in Fig. 2) of said at least one aggregation slot (see rejection to claim 1 using Prior art 1) and Ethernet (see "Ethernet" recited in paragraph 45 on page 5) receive pins (see receive pins 1 and 2 and connection 24 in Fig. 2) of said at least one node slots (see rejection to claim 1 using Prior art 1) are connected to Ethernet transmit pins (see transmit pins 3 and 6 and connection 24 in Fig. 2) of said aggregation slot(see rejection to claim 1 using Prior art 1) to make a direct point-to-point Ethernet connection (see explanation above, using Prior art 1).

Schwartz discloses the system and method for communicating data packets using a backplane switch including the following features.

Regarding claim 5, having a plurality of node cards (see "backplane cards 16a, 16b, 16c, 16d, 16e, and 16f" as recited in column 3, line 33-35 and Fig. 1) connected to said node slots (see interface 18 connected to backplane cards 16a-16f in Fig. 1 and "interfaces 18 are sockets...mounted to backplane...and backplane cards 16 plug or insert into the sockets" recited in 4, line 8-11) and an aggregation card (see "backplane switch...installed on a circuit card" as recited in column 5, line 43-44) comprising a node card (see "circuit card" as recited in column 5, line 43-44) equipped with an Ethernet bridging unit (see "backplane switch" recited in column 5, line 43-44 and backplane switch 12 in Fig. 1) and an external Ethernet (see "gateway card

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16e...communicates...to network device 22 according to an Ethernet protocol” recited in column 7, line 37-41 wherein network device 22 is an external device as shown in Fig.

1) connector (see “external ports 42” and “link 44” as recited in column 6, line 26-27 and Fig. 1, wherein the external ports 42 is located on the backplane switch and connected to link 44) is connected to said aggregation slot (see the socket on backplane 14 as recited in: “backplane switch 12...installed on a circuit card that is plugged or inserted into a socket...on backplane 14” in column 5, line 41-44) and said Ethernet bridging unit (backplane switch 12, as described above) bridges between said node cards (backplane cards 16a-16f as described above) and external addresses (see “Backplane switch 12 receives...destination network addresses assigned to backplane cards 16...and communicates the data packets to backplane cards 16...” as recited in column 5, line 33-41) by means of said external Ethernet connector (external ports 42 and links 44 as described above; see “receives a data packet with a destination network address...backplane switch 12 identifies external port 42 associated with the destination network address and communicates the data packet...” see column 5, line 53-60).

Regarding claim 6, wherein said Ethernet bridging unit (see backplane switch 12 as described in the rejection to claim 5, and shown in Fig. 1) is an Ethernet switch (see backplane switch 12 as described in the rejection to claim 5, and shown in Fig. 1; also see “Ethernet protocol” as recited in column 4, line 49-63).

Regarding claim 7, wherein each of said node cards (backplane cards 16a-16f described in the rejection to claim 5 and shown in Fig. 1) is connected to two aggregation cards (see backplane switch 12 in Fig. 1, which is connected to a circuit

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card connected to a socket of the backplane as described in the rejection to claim 5. In addition, Fig. 6 of Prior art 1 shows node slots 1-4 (which are connected to backplane cards in Fig. 1 of Schwartz) being connected to two fabric slots a and b (where the circuit card including backplane switch is connected to in Schwartz). That is, the backplane cards connect to the node slots 1-4, which are connected to two fabric slots that connect to aggregation circuit cards).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Prior art 1 by using the features, as taught by Dove and Schwartz, in order to provide compatibility to the commonly-used Ethernet-based systems; and order to communicate with external devices.

9. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art 1 in view of Dove (US 2005/0036506) and Schwartz (US 6,947,410) as applied to claim 5 above, and further in view of the article "WHAT'S NEW: Sound of the comms board" from Electronic Engineering Times UK, p 30, June 17, 2002 (hereon referenced as Prior art 2).

Prior art 1, Dove and Schwartz disclose the claimed limitations in paragraph 8 above. Prior art 1, Dove and Schwartz do not disclose the following limitations: regarding claim 8, wherein said aggregation card is a Motorola PVRB series card.

Prior art 2 discloses the new Motorola PVRB672 designed to support voice-over Internet Protocol networks including the following features.

Regarding claim 8, wherein said aggregation card (explained in the rejection to claim 5) is a Motorola PVRB series card (see "Motorola...PVRB672" recited in the second paragraph of the text).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Prior art 1 with Dove and Schwartz by using the features, as taught by Prior art 2, in order to implement the invention onto a commercially available board.

10. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art 1 in view of Dove (US 2005/0036506) and Schwartz (US 6,947,410) as applied to claim 5 above, and further in view of "M-AJ 18:30 Motorola CompactPCI Blade Enables High-Speed Processing" from PR Newswire on Tuesday, September 24, 2002 (Hereon referenced as Prior art 3).

Prior art 1, Dove and Schwartz disclose the claimed limitations in paragraph 8 above. Prior art 1, Dove and Schwartz do not disclose the following limitations: regarding claim 9, wherein said aggregation card is a Motorola PCRB series card.

Prior art 3 discloses the new Motorola compactPCI blade that enables high-speed processing and includes the following features.

Regarding claim 9, wherein said aggregation card (explained in the rejection to claim 5) is a Motorola PCRB series card (see "PCRb" recited in the first paragraph of the text).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to modify the system of Prior art 1 with Dove and Schwartz by using the features, as taught by Prior art 3, in order to implement the invention onto a commercially available board.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Czerwiec (US 2002/0015412) discloses a line termination equipment.

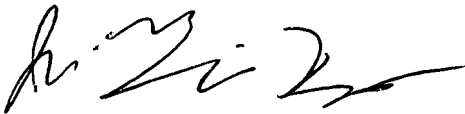
Barrow (US 7,027,439) discloses a data storage system with improved network interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ju-Tai Kao whose telephone number is (571)272-9719. The examiner can normally be reached on Monday ~Friday 7:30 AM ~5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Yao can be reached on (571)272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ju-Tai Kao



KWANG BIN YAO
SUPERVISORY PATENT EXAMINER

